areas. For homes designed to be located in Wind Zones II and III, manufacturers shall design exterior walls surrounding the primary window and sliding glass door openings to allow for the installation of shutters or other protective covers, such as plywood, to cover these openings. Although not required, the Department encourages manufacturers to provide the shutters or protective covers and to install receiving devices, sleeves, or anchors for fasteners to be used to secure the shutters or protective covers to the exterior walls. If the manufacturer does not provide shutters or other protective covers to cover these openings, the manufacturer must provide to the homeowner instructions for at least one method of protecting primary window and sliding glass door openings. This method must be capable of resisting the design wind pressures specified in §3280.305 without taking the home out of conformance with the standards in this part. These instructions must be included in the printed instructions that accompany each manufactured home. The instructions shall also indicate whether receiving devices, sleeves, or anchors, for fasteners to be used to secure the shutters or protective covers to the exterior walls, have been installed or provided by the manufac-

 $[52\ {\rm FR}\ 4583,\ {\rm Feb}.\ 12,\ 1987,\ {\rm as\ amended}\ {\rm at}\ 52$   ${\rm FR}\ 35543,\ {\rm Sept}.\ 22,\ 1987;\ 58\ {\rm FR}\ 55009,\ {\rm Oct}.\ 25,\ 1993;\ 59\ {\rm FR}\ 2474,\ {\rm Jan}.\ 14,\ 1994;\ 70\ {\rm FR}\ 72046,\ {\rm Nov}.\ 30,\ 2005]$ 

## § 3280.404 Standard for egress windows and devices for use in manufactured homes.

- (a) Scope and purpose. The purpose of this section is to establish the requirements for the design, construction, and installation of windows and approved devices intended to be used as an emergency exit during conditions encountered in a fire or similar disaster.
- (b) Performance. Egress windows including auxiliary frame and seals, if any, shall meet all requirements of AAMA 1701.2-95, Voluntary Standard Primary Window and Sliding Glass Door for Utilization in Manufactured Housing and AAMA Standard 1704-1985, Voluntary Standard Egress Window Systems for Utilization in Manufac-

- tured Housing, except the exterior and interior pressure tests for components and cladding must be conducted at the design wind loads required by \$3280.305(c)(1).
- (c) Installation. (1) The installation of egress windows or devices shall be installed in a manner which allows for proper operation and provides protection against the elements. (See § 3280.307.)
- (2) An operational check of each installed egress window or device shall be made at the manufactured home factory. All egress windows and devices shall be openable to the minimum required dimension without binding or requiring the use of tools. Any window or device failing this check shall be repaired or replaced. A repaired window shall conform to its certification. Any repaired or replaced window or device shall pass the operational check.
- (d) Operating instructions. Operating instructions shall be affixed to each egress window and device and carry the legend "Do Not Remove."
- (e) Certification of egress windows and devices. Egress windows and devices shall be listed in accordance with the procedures and requirements of AAMA Standard 1704–1985. As of January 17, 1995, this certification must be based on tests conducted at the design wind loads specified in §3280.305(c)(1).
- (f) Protection of egress window openings in high wind areas. For homes designed to be located in Wind Zones II and III, manufacturers shall design exterior walls surrounding the egress window openings to allow for the installation of shutters or other protective covers, such as plywood, to cover these openings. Although not required, the Department encourages manufacturers to provide the shutters or protective covers and to install receiving devices, sleeves, or anchors for fasteners to be used to secure the shutters or protective covers to the exterior walls. If the manufacturer does not provide shutters or other protective covers to cover these openings, the manufacturer must provide to the homeowner instructions for at least one method of protecting egress window openings. This method must be capable of resisting the design wind pressures specified in §3280.305

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without taking the home out of conformance with the standards in this part. These instructions must be included in the printed instructions that accompany each manufactured home. The instructions shall also indicate whether receiving devices, sleeves, or anchors, for fasteners to be used to secure the shutters or protective covers to the exterior walls, have been installed or provided by the manufacturer.

[52 FR 4583, Feb. 12, 1987, as amended at 59 FR 2474, Jan. 14, 1994; 70 FR 72046, Nov. 30, 2005]

## § 3280.405 Standard for swinging exterior passage doors for use in manufactured homes.

- (a) Introduction. This standard applies to all exterior passage door units, excluding sliding doors and doors used for access to utilities and compartments. This standard applies only to the door frame consisting of jambs, head and sill and the attached door or doors.
- (b) Performance requirements. The design and construction of exterior door units must meet all requirements of AAMA 1702.2-95, Voluntary Standard Swinging Exterior Passage Door for Utilization in Manufactured Housing.
- (c) Materials and methods. Any material or method of construction shall conform to the performance requirements as outlined in paragraph (b) of this section. Plywood shall be exterior type and preservative treated in accordance with NWWDA I.S.4-81, Water Repellent Preservative Non-Pressure Treatment for Millwork.
- (d) Exterior doors. All swinging exterior doors shall be installed in a manner which allows proper operation and provides protection against the elements (see §3280.307).
- (e) Certification. All swinging exterior doors to be installed in manufactured homes must be certified as complying with AAMA 1702.2–95, Voluntary Standard Swinging Exterior Passage Door for Utilization in Manufactured Housing.
- (1) All such doors must show evidence of certification by affixing a quality certification label to the product in accordance with ANSI Z34.1–1993, Third Party Certification Programs for Products, Processes, and Services.

- (2) In determining certifiability of the products, an independent quality assurance agency must conduct a preproduction specimen test in accordance with AAMA 1702.2–95, Voluntary Standard Swinging Exterior Passage Door for Utilization in Manufactured Housing.
- (f) Protection of exterior doors in high wind areas. For homes designed to be located in Wind Zones II and III, manufacturers shall design exterior walls surrounding the exterior door openings to allow for the installation of shutters or other protective covers, such as plywood, to cover these openings. Although not required, the Department encourages manufacturers to provide the shutters or protective covers and to install receiving devices, sleeves, or anchors for fasteners to be used to secure the shutters or protective covers to the exterior walls. If the manufacturer does not provide shutters or other protective covers to cover these openings, the manufacturer must provide to the homeowner instructions for at least one method of protecting exterior door openings. This method must be capable of resisting the design wind pressures specified in §3280.305 without taking the home out of conformance with the standards in this part. These instructions must be included in the printed instructions that accompany each manufactured home. The instructions shall also indicate whether receiving devices, sleeves, or anchors, for fasteners to be used to secure the shutters or protective covers to the exterior walls, have been installed or provided by the manufacturer.

[40 FR 58752, Dec. 18, 1975. Redesignated at 44 FR 20679, Apr. 6, 1979, as amended at 52 FR 4583, Feb. 12, 1987; 52 FR 35543, Sept. 22, 1987; 58 FR 55009, Oct. 25, 1993; 59 FR 2474, Jan. 14, 1994; 70 FR 72046, Nov. 30, 2005]

## § 3280.406 Air chamber test method for certification and qualification of formaldehyde emission levels.

(a) Preconditioning. Preconditioning of plywood or particleboard panels for air chamber tests shall be initiated as soon as practicable but not in excess of 30 days after the plywood or particleboard is produced or surface-finished, whichever is later, using randomly selected panels.